Clinically Led, Operationally Driven: The Future of Excellence in Healthcare Delivery

Clinically Integrated Supply Chain Symposium Session 1
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Betty Jo Rocchio, DNP, RN, CRNA, CENP
Senior Vice President & System Chief Nursing Officer
Mercy

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Welcome

Betty Jo Rocchio, DNP, RN, CRNA, CENP
Senior Vice President & System Chief Nursing Officer
Mercy
Conflict of Interest

Betty Jo Rocchio

Has no real or apparent conflicts of interest to report.
Agenda

• Pandemic Aftermath
• CISC Definitions
• Change in Paradigm, Change in Approach
• Future Formula for Success
• New Era CISC
This session will begin the journey in a discussion regarding clinically integrated supply chains. Learn from a leader who has already forged the path and operationalized this work. They will share what they have done thus far, what it took to get there and where they are going.
Learning Objectives

• Define the term: clinically integrated supply chain

• Identify what a clinically integrated supply chain can do for an organization

• Describe the goal across the constituency, understanding the multistakeholder components and benefits
Clinical integration from the perspective of the healthcare supply chain is an interdisciplinary approach to deliver patient care with the highest value (high quality, best outcomes, and minimal waste that results in the lowest total cost of care); this is achieved through assimilation and coordination of clinical and supply chain knowledge, data, and leadership toward care across the continuum that is safe, timely, evidence-based, efficient, equitable, and patient-focused.

AHRMM
CISC Definitions

Clinical

Those involved in a CISC work collaboratively with clinical leaders to improve patient care with an advanced supply chain strategy. The supply chain is the foundation, and this operations team supports the partnership by making decisions jointly with the clinical team. An important facet of a CISC is that it is recognized by clinical leaders to combine a successful business strategy with improved clinical workflows for frontline staff.

Betty Jo Rocchio
It is an organizational strategy whereby leadership views supply chain as a strategic asset that can advance the performance of the organization. The strategy in systems to date have been driven by patient safety events that have galvanized leadership support to strengthen system transparency (ex. Alberta Health Services, NHS, UK). Clinically integrated supply chain strategies introduce supply chain processes, tools and technologies into care delivery settings to enable clinician teams to reduce risk of adverse events, track patient care processes, the products used in care to individual patients to identify the best outcomes for patients and the conditions under which best outcomes are achieved.

Anne Snowden
The CISC is a very noble quest. Another way to say this is “How do we put the patient at the center of supply chain?” It’s not difficult to imagine. At the last 10 feet of the supply chain is a clinician with a product or tool in his or her hands helping a patient.

Healthcare is very complex and costly. It’s not run like a business; hence there are many stakeholders involved and all with varying opinions and incentives. Clinicians care about outcomes. Hospital administrators care about efficiency. Supply chain cares about costs. Suppliers care about profits. Patients want cost, quality, and outcomes. There is no single force that pulls all this together.

Brent Johnson
Underlying the successful adoption of a clinically integrated supply chain is data. It is the critical component to the metrics that will be leveraged and elevated to analytical platforms that, in turn, produce frameworks for actionable outcomes. There are several aspects of data that need to be addressed when working toward clinical integration.

Nancy Pakieser
Post Pandemic CISC Definition

Industry Focus  Mercy & SOIPUS

The partnership between caregivers and operations focused on transforming outcomes and providing value, leveraging the principles of supply chain combined with clinical expertise to establish an innovative platform for collaboration to create the environment for execution.

Betty Jo Rocchio & Matt Mentel
WHY

Volume to Value
Patient Outcomes
Strategic Asset
Clinical Cost Drivers

$29 BILLION
Preventable Adverse Events

$17 BILLION
Preventable Readmissions

$16 BILLION
Preventable Medical Errors

1. Allied Market Research (2014)
3. Breaking new ground with RWE (2016)
The Quadruple Aim

Strategies & Structures

Patient Experience

Care Team Well Being

Cost

Quality Care

Solutions to Coordinate & Standards

Research & Information

Evidence-Based Care

& Practice to
force Culture
Different Perspectives to The Quadruple Aim

Operational
- GDSN
- GTIN
- GLN

Reduction of Variation

Clinical
- Patient Experience
- Quality
- Cost
- Care Team Well Being

Outcomes

Finance

Cost of Care

...the need for a common language
WHAT

Evidence Based Decision Making Technology Data Partnership
Evidence Based Practice

A solution to improving healthcare quality and translating research into clinical practice.
EBP & Data: The Connection

EBP & Data are interconnected!
Technology

- Systems of Record
  - Data generation sources
  - Most organizations have hundreds of these
  - Often claims to be more than reality

- Systems of Action
  - Provides nudges or forced actions
  - Real-time capabilities
  - Multi-delivery methods (text, pop-ups)

- Systems of Display
  - Descriptive & Predictive Analytics
  - Status sources
  - Interesting but limited action
Point of Use Scanning Capturing the Barcode

System of Action
The Growing Need for Healthcare Analytics

Do drugs and devices work as intended in the real world?
Are products safe and effective?
What clinical practices and patient variables impact product effectiveness?
Can we predict if certain products will work better for certain patients?
How can we improve outcomes for patients?
How do we operate more efficiently?
Standards to Outcomes

The key ingredient to high reliability & performance excellence

Data
Information
Insight
Action
Data Transparency to Outcomes

React & Respond
- Raw Data
- Cleansed Data
- Standard Reports
- Ad Hoc Reports
- Generic Predictive Analytics

Predict & Act
- Predictive Modeling/Forecasting
- Prescriptive Analytics/Optimization

Value

Maturity

Bubble Size: Complexity

- Ad Hoc Reports
- Standard Reports
- Cleansed Data
- Raw Data
- Predictive: What’s likely to happen?
  - Ability to identify root cause
  - Ability to remove/isolate confounding information
- Diagnostic: Why did it happen?
  - Historical Patterns being used to predict specific outcomes using algorithms
- Predictive: What should I do?
  - Application of advanced analytic techniques to make specific recommendations
  - Decisions automated or provides Decision Support

- Generic Predictive Analytics
- Ad Hoc Reports
- Standard Reports
- Cleansed Data
- Raw Data
Mercy Technology Services

Extending Mission Through Technology Coast to Coast

1000
Technology Co-workers

Over 70
Hospitals served

70,000
Epic users supported

Helping to pioneer
A new model of care

The Nation’s First Epic-Accredited

Gold Star Leader in our use of Epic
HOW

Vision & Strategy
Partnership & Engagement
Education
Clinical Data for Information Aggregation
Culture Change
Organizational Strategy

- Value
- Comparative Effectiveness
- Operational Efficiency

Quadruple Aim

- Risk Reduction
- Enhance Clinical Workflow
- Coworker Satisfaction
Four Key Focus Areas

Vision & Strategy

Governance and Leadership

Clinical Integration

Automation

Data Analytics
Cross-Functional Process Improvement Team

- Physicians
- IT Leadership
- Financial Analyst
- Supply Chain & Materials Management
- Finance Leadership
- Perioperative Leadership
- Perioperative Team Members
PPE Inventory

<table>
<thead>
<tr>
<th>Product Category</th>
<th>Current Inventory</th>
<th>Projected Velocity</th>
<th>Projected Days on Hand</th>
<th>Pipeline Inventory</th>
<th>Prev Velocity 7Day Avg</th>
<th>Actual Velocity 7Day Avg</th>
<th>% Velocity Change</th>
<th>% of Projected Velocity</th>
<th>Actual Days on Hand</th>
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</thead>
<tbody>
<tr>
<td>Blue Droplet Masks</td>
<td>1,365,732</td>
<td>28,248</td>
<td>48</td>
<td>475,000</td>
<td>4,195</td>
<td>6,527</td>
<td>+58 %</td>
<td>23 %</td>
<td>239</td>
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<tr>
<td>Exam Gloves</td>
<td>125,306</td>
<td>1,300</td>
<td>96</td>
<td>72,980</td>
<td>382</td>
<td>413</td>
<td>+8 %</td>
<td>32 %</td>
<td>303</td>
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<td>Gowns</td>
<td>306,400</td>
<td>14,351</td>
<td>21</td>
<td>1,531,900</td>
<td>7,135</td>
<td>6,006</td>
<td>-7 %</td>
<td>45 %</td>
<td>46</td>
</tr>
<tr>
<td>Isolation Masks</td>
<td>886,918</td>
<td>29,557</td>
<td>30</td>
<td>500,000</td>
<td>4,684</td>
<td>2,512</td>
<td>-46 %</td>
<td>8 %</td>
<td>353</td>
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<tr>
<td>N95 Masks</td>
<td>279,866</td>
<td>10,128</td>
<td>28</td>
<td>1,137,800</td>
<td>332</td>
<td>404</td>
<td>+22 %</td>
<td>4 %</td>
<td>693</td>
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<tr>
<td>Shields</td>
<td>535,650</td>
<td>8,726</td>
<td>61</td>
<td>579,000</td>
<td>1,150</td>
<td>73</td>
<td>-94 %</td>
<td>1 %</td>
<td>7,352</td>
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<tr>
<td>Swabs</td>
<td>33,029</td>
<td>1,000</td>
<td>33</td>
<td>189,050</td>
<td>591</td>
<td>756</td>
<td>+28 %</td>
<td>76 %</td>
<td>44</td>
</tr>
</tbody>
</table>

Actual Days on Hand: 44
The Focus for Culture Change

• Value Focused with a multidisciplinary stakeholder team.
• Education to all stakeholders on what “value” is and what it is not.
• Perpetual Inventory Management System to align technology and data.
• Reduction of variation is easier when technology assists with correct data.
• Partnerships developed with key manufacturers to focus on quality and outcomes as opposed to price across service lines.
• Supply chain has professional IT solutions built into everyday processes that align them as a strategic partner.
The Results

- Improved visibility of supplies across the system
- End-to-end lot and serial number tracking
- True tissue tracking—we know where it is at all times
- Improved access to real-time information
- Improved relationships with manufacturers
- Expiration control through FEFO (First Expired, First Out) functionality
- Better support of and response to patient needs
- Enriched clinician engagement—happier nursing staff!
Process Transformation

People → Process → Solutions
Thank you!

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betty.rocchio@mercy.net